

AMENDMENTS TO THE CLAIMSRECEIVED
CENTRAL FAX CENTER

Please amend the claims as follows:

AUG 16 2006

1-4 (Canceled)

5. (Withdrawn) An OATP protein comprising the amino acid sequence selected from the group consisting of SEQ ID NO:2 (OATP2), SEQ ID NO:4 (OATP-RP2), SEQ ID NO:6 (OATP-RP3), SEQ ID NO:8 (OATP-RP4), SEQ ID NO:10 (OATP-RP5), and SEQ ID NO:12 (OATP-RP1).

6. (Withdrawn) A modified OATP protein comprising an OATP of claim 5 that maintains an activity of said OATP protein of claim 5, wherein said modified OATP protein comprises at least one amino acid substitution or deletion.

7. (Canceled)

8. (Canceled)

9. (Withdrawn) An antibody specific for the OATP as claimed in claim 5.

10. (Withdrawn) The antibody of claim 9 wherein said antibody is a monoclonal antibody.

11. (Withdrawn) The OATP of claim 5, produced by:

- inserting a nucleic acid sequence encoding said OATP into an appropriate expression vector;
- transfected said expression vector into an appropriate transfection host cell;
- growing said transfected host cells in an appropriate culture media; and
- purifying the OATP from said culture media.

12. (Withdrawn) A method for identifying a ligand which is capable of binding to the OATP of claim 5, or to a part of said OATP, said method comprising the steps of :

- (a) reacting said OATP, or part of said OATP, with said ligand which potentially is capable of binding to the OATP or part of said OATP, under conditions which permit the formation of ligand-OATP complexes; and
- (b) assaying for ligand-OATP complexes, for free ligand, or for non-complexed OATP.

13. (Currently amended) A method of identifying a compound that is transported by an OATP2 protein comprising the amino acid sequence of SEQ ID NO:2 for identifying a substrate which is capable of being transported by the OATP of claim 5, or a part of said OATP, said method comprising the steps of:

- (a) contacting an reacting said OATP2 protein which is located in a liver cell or a cell expressing an exogenous OATP2 protein, or part of said OATP, with said compound substrate which is potentially capable of being transported by the said OATP2 or part of said OATP, under conditions which permit the movement of said compound substrate across the cell a membrane; and
- (b) assaying for the movement of said compound substrate across the membrane, wherein the assaying comprises:
 - (i) lysing the cell to generate cell lysate; and
 - (ii) detecting the presence of compound in the lysate,
wherein the presence of the compound in the lysate indicates the compound is transported by OATP2.

14. (Withdrawn) A method of delivering a molecule to an organ that expresses an OATP protein of claim 5, said method comprising:

- (a) identifying a substrate that is transported by said OATP;
- (b) joining said substrate to said molecule to be delivered to form a substrate-molecule fusion compound; and
- (c) providing said substrate-molecule fusion compound to said organ.

15. (Withdrawn) A fusion protein comprising all or a portion of the OATP of claim 5, attached to a second polypeptide.

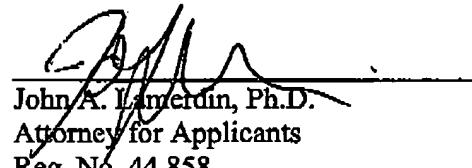
16. (Withdrawn) A method for identifying a modulator which is capable of augmenting or inhibiting the transport of a substrate by the OATP of claim 5, or a part of said OATP, said method comprising:

- a) reacting said OATP, or part of said OATP, with said substrate and said modulator which potentially is capable of augmenting or inhibiting the transport of a substrate under conditions which permit the movement of said substrate across a membrane;
- b) measuring the augmentation or inhibition of transport of said compound by said modulator.

17-22. (Canceled)

Respectfully submitted,

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